

Erin O'Brien

From: JT Workman <workman_22@hotmail.com>
Sent: Tuesday, June 19, 2012 8:44 PM
To: Elizabeth Rorie; chaye642@bellsouth.net
Cc: Erin O'Brien; Wade Murphy; Angela Warden; Jack Wade
Subject: RE: TN0074926 outgoing correspondence

Mr. Hayes has told me he would like to obtain a SOPCD, so please change the selection from unknown, please advise to SOPCD.

In regards to your deficiencies:

4.A. This is a linear plan.

B. According to UT PB1510. Swine manure that is irrigated with no incorporation loses 50% of the nitrogen.

C. To calculate available residual Nitrogen follow Table 4 in the same document. Manure is applied annually, so you take Last year's manure test Nitrogen and multiply by the coefficient 0.13 to obtain residual manure Nitrogen from previous applications.

D. To calculate the rate Chuck Hayes should take his previous manure test and go to page 42 of the CNMP table 6.5. This will give him the removal rates and phosphate recs for each field. Whichever value is higher is the value to which applications should be based.

Rec or Removal Rate divided by Manure analysis P2O5 multiplied by 1,000 gives that rate to which each field should be applied.

Then for nitrogen and K2O take number of gallons applied divided by 1,000 and multiplied by the Nitrogen and K2O manure analysis will give him units applied.

E. Also please include in his permit that Mr. Hayes can apply at these rates in the time period of March through October.

In addition, why is this information being asked? When the first two plans I wrote with the Manure Management Planner (MMP) was in a linear plan with the same information given and no questions were asked.

J.T. Workman IV
Workman Consulting, LLC
269 Evans Lane
Clinton, Ky 42031
270-254-0088 (Cell)

From: Elizabeth.Rorie@tn.gov
To: chaye642@bellsouth.net; workman_22@hotmail.com
CC: Erin.O'Brien@tn.gov; Wade.Murphy@tn.gov; Angela.Warden@tn.gov; Jack.Wade@tn.gov
Subject: TN0074926 outgoing correspondence
Date: Mon, 18 Jun 2012 12:41:54 +0000

All,

The attachment is correspondence related to Chuck Hayes Farms. If you have trouble opening it, please let me know. If you have questions about the contents of the document, please contact Erin O'Brien @ 615-253-2245.

Please consider saving a copy of this email for your records.

(This link is for Division of Water Resources staff members only: http://tdecone.tdec.state.tn.us:7777/pls/p005/f?p=111:51:3562092325726297::NO::P51_PERMIT_NUMBER:TN007

4926.)

Beth Rorie
Secretary, Permit Section
615-532-1172

TDEC-DWPC
401 Church St., 6th Floor Annex
Nashville, TN 37243

We accept and encourage electronic document submittals.

Erin O'Brien

From: JT Workman <workman_22@hotmail.com>
Sent: Monday, June 25, 2012 7:40 PM
To: Erin O'Brien; Angela Warden
Subject: Chuck Hayes
Attachments: ChuckHayesalt1.nat-cnmp.doc

Please add this document to Chuck Hayes' CNMP. This is giving Mr. Hayes the option to change his crops to bermuda hay. Also please allow Mr. Hayes to apply manure March through October for option one and to be able to apply November through February only in the event of lagoon getting close to the 2 foot freeboard mark. In addition, please make statement that weather conditions have to be atleast not frozen, water saturated or major storm event coming.

Let me know if anything else is needed.

J.T. Workman IV
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270-254-0088 (Cell)

Chuck Hayes Option 1 (All Bermuda Hay)
5.3. Nitrogen and Phosphorus Risk Analyses

Tennessee Phosphorus Index

Field	Crop Year	Site and Transport Factor	Mgmt. and Source Factor	P Index w/o P Apps	P Index w/ P Apps	P Loss Risk
NC2	2012	15	20	30	300	High
NC2	2013	15	20	30	300	High
NC2	2014	15	20	30	300	High
NC2	2015	15	20	30	300	High
NC2	2016	15	20	30	300	High
NC3	2012	15	20	60	300	High
NC3	2013	15	20	60	300	High
NC3	2014	15	20	60	300	High
NC3	2015	15	20	60	300	High
NC3	2016	15	20	60	300	High
NC1A	2012	15	20	30	300	High
NC1A	2013	15	20	30	300	High
NC1A	2014	15	20	30	300	High
NC1A	2015	15	20	30	300	High
NC1A	2016	15	20	30	300	High
NC1B	2012	15	19	15	285	High
NC1B	2013	15	19	15	285	High
NC1B	2014	15	19	15	285	High
NC1B	2015	15	19	15	285	High
NC1B	2016	15	19	15	285	High
LS4	2012	15	20	30	300	High
LS4	2013	15	20	30	300	High
LS4	2014	15	20	30	300	High
LS4	2015	15	20	30	300	High
LS4	2016	15	20	30	300	High
LS2A	2012	15	23	15	345	Very High

Field	Crop Year	Site and Transport Factor	Mgmt and Source Factor	P Index		P Loss Risk
				P Index w/o P Apps	P Index w/ P Apps	
LS2A	2013	15	23	15	345	Very High
LS2A	2014	15	23	15	345	Very High
LS2A	2015	15	23	15	345	Very High
LS2A	2016	15	23	15	345	Very High
LS3A	2012	15	23	15	345	Very High
LS3A	2013	15	23	15	345	Very High
LS3A	2014	15	23	15	345	Very High
LS3A	2015	15	23	15	345	Very High
LS3A	2016	15	23	15	345	Very High
LS3B	2012	15	20	60	300	High
LS3B	2013	15	20	60	300	High
LS3B	2014	15	20	60	300	High
LS3B	2015	15	20	60	300	High
LS3B	2016	15	20	60	300	High
LS2B	2012	15	23	15	345	Very High
LS2B	2013	15	23	15	345	Very High
LS2B	2014	15	23	15	345	Very High
LS2B	2015	15	23	15	345	Very High
LS2B	2016	15	23	15	345	Very High
LS1B	2012	15	19	15	285	High
LS1B	2013	15	19	15	285	High
LS1B	2014	15	19	15	285	High
LS1B	2015	15	19	15	285	High
LS1B	2016	15	19	15	285	High
LS1A	2012	15	19	15	285	High
LS1A	2013	15	19	15	285	High
LS1A	2014	15	19	15	285	High
LS1A	2015	15	19	15	285	High
LS1A	2016	15	19	15	285	High
LS5	2012	15	23	15	345	Very High

Field	Crop Year	Site and Transport Factor	Mgmt and Source Factor	P Index		P Loss Risk
				w/o P Apps	w/ P Apps	
LS5	2013	15	23	15	345	Very High
LS5	2014	15	23	15	345	Very High
LS5	2015	15	23	15	345	Very High
LS5	2016	15	23	15	345	Very High
LS6	2012	15	23	15	345	Very High
LS6	2013	15	23	15	345	Very High
LS6	2014	15	23	15	345	Very High
LS6	2015	15	23	15	345	Very High
LS6	2016	15	23	15	345	Very High
LS	2012	15	20	30	300	High
LS	2013	15	20	30	300	High
LS	2014	15	20	30	300	High
LS	2015	15	20	30	300	High
LS	2016	15	20	30	300	High

6.5. Planned Crops and Fertilizer Recommendations

Field	Crop Year	Planned Crop	Yield Goal (per Acre)	N Rec (Lbs/A)	P ₂ O ₅ Rec (Lbs/A)	K ₂ O Rec (Lbs/A)	N Removed (Lbs/A)	P ₂ O ₅ Removed (Lbs/A)	K ₂ O Removed (Lbs/A)	Custom Fert. Rec. Source
NC2	2012	Bermuda common hay	5.0 Ton	300	80	0	230	60	250	
NC2	2013	Bermuda common hay	5.0 Ton	300	80	0	230	60	250	
NC2	2014	Bermuda common hay	5.0 Ton	300	80	0	230	60	250	
NC2	2015	Bermuda common hay	5.0 Ton	300	80	0	230	60	250	
NC2	2016	Bermuda common hay	5.0 Ton	300	80	0	230	60	250	
NC3	2012	Bermuda common hay	5.0 Ton	300	0	0	230	60	250	
NC3	2013	Bermuda common hay	5.0 Ton	300	0	0	230	60	250	
NC3	2014	Bermuda common hay	5.0 Ton	300	0	0	230	60	250	
NC3	2015	Bermuda common hay	5.0 Ton	300	0	0	230	60	250	
NC3	2016	Bermuda common hay	5.0 Ton	300	0	0	230	60	250	
NC1A	2012	Bermuda common hay	5.0 Ton	300	80	0	230	60	250	
NC1A	2013	Bermuda common hay	5.0 Ton	300	80	0	230	60	250	
NC1A	2014	Bermuda common hay	5.0 Ton	300	80	0	230	60	250	
NC1A	2015	Bermuda common hay	5.0 Ton	300	80	0	230	60	250	
NC1A	2016	Bermuda common hay	5.0 Ton	300	80	0	230	60	250	
NC1B	2012	Bermuda common hay	5.0 Ton	300	80	0	230	60	250	
NC1B	2013	Bermuda common hay	5.0 Ton	300	80	0	230	60	250	
NC1B	2014	Bermuda common hay	5.0 Ton	300	80	0	230	60	250	
NC1B	2015	Bermuda common hay	5.0 Ton	300	80	0	230	60	250	
NC1B	2016	Bermuda common hay	5.0 Ton	300	80	0	230	60	250	
LS4	2012	Bermuda common hay	5.0 Ton	300	80	0	230	60	250	
LS4	2013	Bermuda common hay	5.0 Ton	300	80	0	230	60	250	
LS4	2014	Bermuda common hay	5.0 Ton	300	80	0	230	60	250	
LS4	2015	Bermuda common hay	5.0 Ton	300	80	0	230	60	250	
LS4	2016	Bermuda common hay	5.0 Ton	300	80	0	230	60	250	
LS2A	2012	Bermuda common hay	5.0 Ton	300	120	0	230	60	250	
LS2A	2013	Bermuda common hay	5.0 Ton	300	120	0	230	60	250	
LS2A	2014	Bermuda common hay	5.0 Ton	300	120	0	230	60	250	
LS2A	2015	Bermuda common hay	5.0 Ton	300	120	0	230	60	250	

Field	Crop Year	Planned Crop	Yield Goal (per Acre)	N Rec (Lbs/A)	P ₂ O ₅ Rec (Lbs/A)	K ₂ O Rec (Lbs/A)	N Removed (Lbs/A)	P ₂ O ₅ Removed (Lbs/A)	K ₂ O Removed (Lbs/A)	Custom Fert. Rec. Source
LS2A	2016	Bermuda common hay	5.0 Ton	300	120	0	230	60	250	
LS3A	2012	Bermuda common hay	5.0 Ton	300	120	0	230	60	250	
LS3A	2013	Bermuda common hay	5.0 Ton	300	120	0	230	60	250	
LS3A	2014	Bermuda common hay	5.0 Ton	300	120	0	230	60	250	
LS3A	2015	Bermuda common hay	5.0 Ton	300	120	0	230	60	250	
LS3A	2016	Bermuda common hay	5.0 Ton	300	120	0	230	60	250	
LS3B	2012	Bermuda common hay	5.0 Ton	300	0	0	230	60	250	
LS3B	2013	Bermuda common hay	5.0 Ton	300	0	0	230	60	250	
LS3B	2014	Bermuda common hay	5.0 Ton	300	0	0	230	60	250	
LS3B	2015	Bermuda common hay	5.0 Ton	300	0	0	230	60	250	
LS3B	2016	Bermuda common hay	5.0 Ton	300	0	0	230	60	250	
LS2B	2012	Bermuda common hay	5.0 Ton	300	120	0	230	60	250	
LS2B	2013	Bermuda common hay	5.0 Ton	300	120	0	230	60	250	
LS2B	2014	Bermuda common hay	5.0 Ton	300	120	0	230	60	250	
LS2B	2015	Bermuda common hay	5.0 Ton	300	120	0	230	60	250	
LS2B	2016	Bermuda common hay	5.0 Ton	300	120	0	230	60	250	
LS1B	2012	Bermuda common hay	5.0 Ton	300	80	0	230	60	250	
LS1B	2013	Bermuda common hay	5.0 Ton	300	80	0	230	60	250	
LS1B	2014	Bermuda common hay	5.0 Ton	300	80	0	230	60	250	
LS1B	2015	Bermuda common hay	5.0 Ton	300	80	0	230	60	250	
LS1B	2016	Bermuda common hay	5.0 Ton	300	80	0	230	60	250	
LS1A	2012	Bermuda common hay	5.0 Ton	300	80	0	230	60	250	
LS1A	2013	Bermuda common hay	5.0 Ton	300	80	0	230	60	250	
LS1A	2014	Bermuda common hay	5.0 Ton	300	80	0	230	60	250	
LS1A	2015	Bermuda common hay	5.0 Ton	300	80	0	230	60	250	
LS1A	2016	Bermuda common hay	5.0 Ton	300	80	0	230	60	250	
LS5	2012	Bermuda common hay	5.0 Ton	300	120	0	230	60	250	
LS5	2013	Bermuda common hay	5.0 Ton	300	120	0	230	60	250	
LS5	2014	Bermuda common hay	5.0 Ton	300	120	0	230	60	250	
LS5	2015	Bermuda common hay	5.0 Ton	300	120	0	230	60	250	

Field	Crop Year	Planned Crop	Yield Goal (per Acre)	N Rec (Lbs/A)	P ₂ O ₅ Rec (Lbs/A)	K ₂ O Rec (Lbs/A)	N Removed (Lbs/A)	P ₂ O ₅ Removed (Lbs/A)	K ₂ O Removed (Lbs/A)	Custom Fert. Rec. Source
LS5	2016	Bermuda common hay	5.0 Ton	300	120	0	230	60	250	
LS6	2012	Bermuda common hay	3.0 Ton	300	120	60	138	36	150	
LS6	2013	Bermuda common hay	5.0 Ton	300	120	60	230	60	250	
LS6	2014	Bermuda common hay	5.0 Ton	300	120	60	230	60	250	
LS6	2015	Bermuda common hay	5.0 Ton	300	120	60	230	60	250	
LS6	2016	Bermuda common hay	5.0 Ton	300	120	60	230	60	250	
LS	2012	Bermuda common hay	5.0 Ton	300	80	0	230	60	250	
LS	2013	Bermuda common hay	5.0 Ton	300	80	0	230	60	250	
LS	2014	Bermuda common hay	5.0 Ton	300	80	0	230	60	250	
LS	2015	Bermuda common hay	5.0 Ton	300	80	0	230	60	250	
LS	2016	Bermuda common hay	5.0 Ton	300	80	0	230	60	250	

* Unharvested cover crop or first crop in double-crop system.

^a Custom fertilizer recommendation.

6.6. Manure Application Planning Calendar – April 2012 through March 2013

Field	Total Acres	Spread Acres	Predominant Soil Type	Primary 2012 Crop (Prev. Primary Crop)	Apr '12	May '12	Jun '12	Jul '12	Aug '12	Sep '12	Oct '12	Nov '12	Dec '12	Jan '13	Feb '13	Mar '13
NC2	9.1	8.8	Iuka SIL (Hy 0-2%)	Bermuda common hay (Bermuda common hay)												
NC3	2.1	2.1	Dulac SICL (Dr 5-12%)	Bermuda common hay (Bermuda common hay)												
NC1A	7.9	6.5	Iuka SIL (Hy 0-2%)	Bermuda common hay (Bermuda common hay)												
NC1B	5.8	5.5	Dulac SICL (Dr 5-12%)	Bermuda common hay (Bermuda common hay)												
LS4	8.9	8.1	Collins SIL (By 0-2%)	Bermuda common hay (Bermuda common hay)												
LS2A	10.1	9.6	Dulac SIL (Dn 2-5%)	Bermuda common hay (Bermuda common hay)	X											
LS3A	12.6	11.8	Collins SIL (By 0-2%)	Bermuda common hay (Bermuda common hay)												
LS3B	10.9	10.1	Dulac SIL (Du 12-25%)	Bermuda common hay (Bermuda common hay)												
LS2B	9.8	9.7	Collins SIL (By 0-2%)	Bermuda common hay (Bermuda common hay)												
LS1B	9.0	9.0	Providence SIL (Pu 5-12%)	Bermuda common hay (Bermuda common hay)												
LS1A	9.2	9.1	Collins SIL (By 0-2%)	Bermuda common hay (Bermuda common hay)												
LS5	7.2	5.7	Dulac SIL (Dv 12-25%)	Bermuda common hay (Bermuda common hay)	X											
LS6	9.0	7.5	Dulac SIL (Dn 2-5%)	Bermuda common hay (Bermuda common hay)	X											
LS	13.9	13.5	Dulac SICL (Dr 5-12%)	Bermuda common hay (Bermuda common hay)	X											
<i>Total</i>	<i>125.5</i>	<i>117.0</i>			X											

Graph in field

No. indicates total loads
"X" indicates other manure apps

Manure Application Planning Calendar – April 2013 through March 2014

Field	Total Acres	Spread Acres	Predominant Soil Type	Primary 2013 Crop (Prev. Primary Crop)	Apr '13	May '13	Jun '13	Jul '13	Aug '13	Sep '13	Oct '13	Nov '13	Dec '13	Jan '14	Feb '14	Mar '14	
NC2	9.1	8.8	Iuka SIL (Hy 0-2%)	Bermuda common hay (Bermuda common hay)													
NC3	2.1	2.1	Dulac SICL (Dr 5-12%)	Bermuda common hay (Bermuda common hay)													
NC1A	7.9	6.5	Iuka SIL (Hy 0-2%)	Bermuda common hay (Bermuda common hay)													
NC1B	5.8	5.5	Dulac SICL (Dr 5-12%)	Bermuda common hay (Bermuda common hay)	X												
LS4	8.9	8.1	Collins SIL (By 0-2%)	Bermuda common hay (Bermuda common hay)	X												
LS2A	10.1	9.6	Dulac SIL (Dn 2-5%)	Bermuda common hay (Bermuda common hay)	X												
LS3A	12.6	11.8	Collins SIL (By 0-2%)	Bermuda common hay (Bermuda common hay)													
LS3B	10.9	10.1	Dulac SIL (Du 12-25%)	Bermuda common hay (Bermuda common hay)													
LS2B	9.8	9.7	Collins SIL (By 0-2%)	Bermuda common hay (Bermuda common hay)													
LS1B	9.0	9.0	Providence SIL (Pu 5-12%)	Bermuda common hay (Bermuda common hay)													
LS1A	9.2	9.1	Collins SIL (By 0-2%)	Bermuda common hay (Bermuda common hay)													
LS5	7.2	5.7	Dulac SIL (Dv 12-25%)	Bermuda common hay (Bermuda common hay)	X												
LS6	9.0	7.5	Dulac SIL (Dn 2-5%)	Bermuda common hay (Bermuda common hay)													
LS	13.9	13.5	Dulac SICL (Dr 5-12%)	Bermuda common hay (Bermuda common hay)	X												
<i>Total</i>	<i>125.5</i>	<i>117.0</i>			X												

Crop in field

No. indicates total loads
"X" indicates other manure apps

Manure Application Planning Calendar – April 2014 through March 2015

Field	Total Acres	Spread Acres	Predominant Soil Type	Primary 2014 Crop (Prev. Primary Crop)	Apr '14	May '14	Jun '14	Jul '14	Aug '14	Sep '14	Oct '14	Nov '14	Dec '14	Jan '15	Feb '15	Mar '15	
NC2	9.1	8.8	Iuka SIL (Hy 0-2%)	Bermuda common hay (Bermuda common hay)	X												
NC3	2.1	2.1	Dulac SICL (Dr 5-12%)	Bermuda common hay (Bermuda common hay)													
NC1A	7.9	6.5	Iuka SIL (Hy 0-2%)	Bermuda common hay (Bermuda common hay)		X											
NC1B	5.8	5.5	Dulac SICL (Dr 5-12%)	Bermuda common hay (Bermuda common hay)		X											
LS4	8.9	8.1	Collins SIL (By 0-2%)	Bermuda common hay (Bermuda common hay)		X											
LS2A	10.1	9.6	Dulac SIL (Dn 2-5%)	Bermuda common hay (Bermuda common hay)													
LS3A	12.6	11.8	Collins SIL (By 0-2%)	Bermuda common hay (Bermuda common hay)													
LS3B	10.9	10.1	Dulac SIL (Du 12-25%)	Bermuda common hay (Bermuda common hay)		X											
LS2B	9.8	9.7	Collins SIL (By 0-2%)	Bermuda common hay (Bermuda common hay)		X											
LS1B	9.0	9.0	Providence SIL (Pu 5-12%)	Bermuda common hay (Bermuda common hay)		X											
LS1A	9.2	9.1	Collins SIL (By 0-2%)	Bermuda common hay (Bermuda common hay)		X											
LS5	7.2	5.7	Dulac SIL (Dv 12-25%)	Bermuda common hay (Bermuda common hay)													
LS6	9.0	7.5	Dulac SIL (Dn 2-5%)	Bermuda common hay (Bermuda common hay)		X											
LS	13.9	13.5	Dulac SICL (Dr 5-12%)	Bermuda common hay (Bermuda common hay)		X											
<i>Total</i>	<i>125.5</i>	<i>117.0</i>			<i>X</i>												

Crop in field

No. indicates total loads
"X" indicates other manure apps

Manure Application Planning Calendar – April 2015 through March 2016

Field	Total Acres	Spread Acres	Predominant Soil Type	Primary 2015 Crop (Prev. Primary Crop)	Apr '15	May '15	Jun '15	Jul '15	Aug '15	Sep '15	Oct '15	Nov '15	Dec '15	Jan '16	Feb '16	Mar '16	
NC2	9.1	8.8	Iuka SIL (Hy 0-2%)	Bermuda common hay (Bermuda common hay)	X												
NC3	2.1	2.1	Dulac SICL (Dr 5-12%)	Bermuda common hay (Bermuda common hay)		X											
NC1A	7.9	6.5	Iuka SIL (Hy 0-2%)	Bermuda common hay (Bermuda common hay)		X											
NC1B	5.8	5.5	Dulac SICL (Dr 5-12%)	Bermuda common hay (Bermuda common hay)		X											
LS4	8.9	8.1	Collins SIL (By 0-2%)	Bermuda common hay (Bermuda common hay)		X											
LS2A	10.1	9.6	Dulac SIL (Dn 2-5%)	Bermuda common hay (Bermuda common hay)		X											
LS3A	12.6	11.8	Collins SIL (By 0-2%)	Bermuda common hay (Bermuda common hay)		X											
LS3B	10.9	10.1	Dulac SIL (Du 12-25%)	Bermuda common hay (Bermuda common hay)		X											
LS2B	9.8	9.7	Collins SIL (By 0-2%)	Bermuda common hay (Bermuda common hay)		X											
LS1B	9.0	9.0	Providence SIL (Pu 5-12%)	Bermuda common hay (Bermuda common hay)		X											
LS1A	9.2	9.1	Collins SIL (By 0-2%)	Bermuda common hay (Bermuda common hay)		X											
LS5	7.2	5.7	Dulac SIL (Dv 12-25%)	Bermuda common hay (Bermuda common hay)		X											
LS6	9.0	7.5	Dulac SIL (Dn 2-5%)	Bermuda common hay (Bermuda common hay)		X											
LS	13.9	13.5	Dulac SICL (Dr 5-12%)	Bermuda common hay (Bermuda common hay)		X											
<i>Total</i>	<i>125.5</i>	<i>117.0</i>				X											

Crop in field

No. indicates total loads
"X" indicates other manure apps

Manure Application Planning Calendar – April 2016 through March 2017

Field	Total Acres	Spread Acres	Predominant Soil Type	Primary 2016 Crop (Prev. Primary Crop)	Apr '16	May '16	Jun '16	Jul '16	Aug '16	Sep '16	Oct '16	Nov '16	Dec '16	Jan '17	Feb '17	Mar '17	
NC2	9.1	8.8	Iuka SIL (Hy 0-2%)	Bermuda common hay (Bermuda common hay)	X												
NC3	2.1	2.1	Dulac SICL (Dr 5-12%)	Bermuda common hay (Bermuda common hay)													
NC1A	7.9	6.5	Iuka SIL (Hy 0-2%)	Bermuda common hay (Bermuda common hay)	X												
NC1B	5.8	5.5	Dulac SICL (Dr 5-12%)	Bermuda common hay (Bermuda common hay)	X												
LS4	8.9	8.1	Collins SIL (By 0-2%)	Bermuda common hay (Bermuda common hay)	X												
LS2A	10.1	9.6	Dulac SIL (Dn 2-5%)	Bermuda common hay (Bermuda common hay)													
LS3A	12.6	11.8	Collins SIL (By 0-2%)	Bermuda common hay (Bermuda common hay)													
LS3B	10.9	10.1	Dulac SIL (Du 12-25%)	Bermuda common hay (Bermuda common hay)													
LS2B	9.8	9.7	Collins SIL (By 0-2%)	Bermuda common hay (Bermuda common hay)	X												
LS1B	9.0	9.0	Providence SIL (Pu 5-12%)	Bermuda common hay (Bermuda common hay)													
LS1A	9.2	9.1	Collins SIL (By 0-2%)	Bermuda common hay (Bermuda common hay)	X												
LS5	7.2	5.7	Dulac SIL (Dv 12-25%)	Bermuda common hay (Bermuda common hay)	X												
LS6	9.0	7.5	Dulac SIL (Dn 2-5%)	Bermuda common hay (Bermuda common hay)	X												
LS	13.9	13.5	Dulac SICL (Dr 5-12%)	Bermuda common hay (Bermuda common hay)													
Total	125.5	117.0			X												

Crop in field

No. indicates total loads
"X" indicates other manure apps

6.7. Planned Nutrient Applications (Manure-spreadable Area)

Field	App. Month	Target Crop	Nutrient Source	Application Method	Rate Basis	Rate/Acre	Loads, Speed or Time	Total Amount Applied	Acres Cov.	Avail N (Lbs/A)	Avail P ₂ O ₅ (Lbs/A)	Avail K ₂ O (Lbs/A)
NC2	Apr 2012	Bermuda common hay	Lagoon	Traveling Gun	1-yr P	28,600 Gal	278 Ft/Hr	251,680 Gal	8.8	97	80	272
NC2	May 2012	Bermuda common hay	46-0-0	Surface broadcast	Supp. N	441 Lbs		3,881 Lbs	8.8	203	0	0
NC2	Apr 2013	Bermuda common hay	Lagoon	Traveling Gun	1-yr P	28,600 Gal	278 Ft/Hr	251,680 Gal	8.8	97	80	272
NC2	May 2013	Bermuda common hay	46-0-0	Surface broadcast	Supp. N	441 Lbs		3,881 Lbs	8.8	203	0	0
NC2	Apr 2014	Bermuda common hay	Lagoon	Traveling Gun	1-yr P	28,600 Gal	278 Ft/Hr	251,680 Gal	8.8	97	80	272
NC2	May 2014	Bermuda common hay	46-0-0	Surface broadcast	Supp. N	441 Lbs		3,881 Lbs	8.8	203	0	0
NC2	Apr 2015	Bermuda common hay	Lagoon	Traveling Gun	1-yr P	28,600 Gal	278 Ft/Hr	251,680 Gal	8.8	97	80	272
NC2	May 2015	Bermuda common hay	46-0-0	Surface broadcast	Supp. N	441 Lbs		3,881 Lbs	8.8	203	0	0
NC2	Apr 2016	Bermuda common hay	Lagoon	Traveling Gun	1-yr P	28,600 Gal	278 Ft/Hr	251,680 Gal	8.8	97	80	272
NC2	May 2016	Bermuda common hay	46-0-0	Surface broadcast	Supp. N	441 Lbs		3,881 Lbs	8.8	203	0	0
NC3	Apr 2012	Bermuda common hay	Lagoon	Traveling Gun	1-yr P	21,500 Gal	369 Ft/Hr	45,150 Gal	2.1	73	60	204
NC3	May 2012	Bermuda common hay	46-0-0	Surface broadcast	Supp. N	493 Lbs		1,035 Lbs	2.1	227	0	0
NC3	Apr 2013	Bermuda common hay	Lagoon	Traveling Gun	1-yr P	21,500 Gal	369 Ft/Hr	45,150 Gal	2.1	73	60	204
NC3	May 2013	Bermuda common hay	46-0-0	Surface broadcast	Supp. N	493 Lbs		1,035 Lbs	2.1	227	0	0
NC3	Apr 2014	Bermuda common hay	Lagoon	Traveling Gun	1-yr P	21,500 Gal	369 Ft/Hr	45,150 Gal	2.1	73	60	204
NC3	May 2014	Bermuda common hay	46-0-0	Surface broadcast	Supp. N	493 Lbs		1,035 Lbs	2.1	227	0	0
NC3	Apr 2015	Bermuda common hay	Lagoon	Traveling Gun	1-yr P	21,500 Gal	369 Ft/Hr	45,150 Gal	2.1	73	60	204
NC3	May 2015	Bermuda common hay	46-0-0	Surface broadcast	Supp. N	493 Lbs		1,035 Lbs	2.1	227	0	0
NC3	Apr 2016	Bermuda common hay	Lagoon	Traveling Gun	1-yr P	21,500 Gal	369 Ft/Hr	45,150 Gal	2.1	73	60	204
NC3	May 2016	Bermuda common hay	46-0-0	Surface broadcast	Supp. N	493 Lbs		1,035 Lbs	2.1	227	0	0

Field	App. Month	Target Crop	Nutrient Source	Application Method	Rate Basis	Rate/Acre	Loads, Speed or Time	Total Amount Applied	Acres Cov.	Avail N (Lbs/A)	Avail P ₂ O ₅ (Lbs/A)	Avail K ₂ O (Lbs/A)
NC1A	Apr 2012	Bermuda common hay	Lagoon	Traveling Gun	1-yr P	28,600 Gal	278 Ft/Hr	185,900 Gal	6.5	97	80	272
NC1A	May 2012	Bermuda common hay	46-0-0	Surface broadcast	Supp. N	441 Lbs		2,867 Lbs	6.5	203	0	0
NC1A	Apr 2013	Bermuda common hay	Lagoon	Traveling Gun	1-yr P	28,600 Gal	278 Ft/Hr	185,900 Gal	6.5	97	80	272
NC1A	May 2013	Bermuda common hay	46-0-0	Surface broadcast	Supp. N	441 Lbs		2,867 Lbs	6.5	203	0	0
NC1A	Apr 2014	Bermuda common hay	Lagoon	Traveling Gun	1-yr P	28,600 Gal	278 Ft/Hr	185,900 Gal	6.5	97	80	272
NC1A	May 2014	Bermuda common hay	46-0-0	Surface broadcast	Supp. N	441 Lbs		2,867 Lbs	6.5	203	0	0
NC1A	Apr 2015	Bermuda common hay	Lagoon	Traveling Gun	1-yr P	28,600 Gal	278 Ft/Hr	185,900 Gal	6.5	97	80	272
NC1A	May 2015	Bermuda common hay	46-0-0	Surface broadcast	Supp. N	441 Lbs		2,867 Lbs	6.5	203	0	0
NC1A	Apr 2016	Bermuda common hay	Lagoon	Traveling Gun	1-yr P	28,600 Gal	278 Ft/Hr	185,900 Gal	6.5	97	80	272
NC1A	May 2016	Bermuda common hay	46-0-0	Surface broadcast	Supp. N	441 Lbs		2,867 Lbs	6.5	203	0	0
NC1B	Apr 2012	Bermuda common hay	Lagoon	Traveling Gun	1-yr P	28,600 Gal	278 Ft/Hr	157,300 Gal	5.5	97	80	272
NC1B	May 2012	Bermuda common hay	46-0-0	Surface broadcast	Supp. N	441 Lbs		2,426 Lbs	5.5	203	0	0
NC1B	Apr 2013	Bermuda common hay	Lagoon	Traveling Gun	1-yr P	28,600 Gal	278 Ft/Hr	157,300 Gal	5.5	97	80	272
NC1B	May 2013	Bermuda common hay	46-0-0	Surface broadcast	Supp. N	441 Lbs		2,426 Lbs	5.5	203	0	0
NC1B	Apr 2014	Bermuda common hay	Lagoon	Traveling Gun	1-yr P	28,600 Gal	278 Ft/Hr	157,300 Gal	5.5	97	80	272
NC1B	May 2014	Bermuda common hay	46-0-0	Surface broadcast	Supp. N	441 Lbs		2,426 Lbs	5.5	203	0	0
NC1B	Apr 2015	Bermuda common hay	Lagoon	Traveling Gun	1-yr P	28,600 Gal	278 Ft/Hr	157,300 Gal	5.5	97	80	272
NC1B	May 2015	Bermuda common hay	46-0-0	Surface broadcast	Supp. N	441 Lbs		2,426 Lbs	5.5	203	0	0
NC1B	Apr 2016	Bermuda common hay	Lagoon	Traveling Gun	1-yr P	28,600 Gal	278 Ft/Hr	157,300 Gal	5.5	97	80	272
NC1B	May 2016	Bermuda common hay	46-0-0	Surface broadcast	Supp. N	441 Lbs		2,426 Lbs	5.5	203	0	0
LS4	Apr 2012	Bermuda common hay	Lagoon	Traveling Gun	1-yr P	28,600 Gal	278 Ft/Hr	231,660 Gal	8.1	97	80	272

Field	App Month	Target Crop	Nutrient Source	Application Method	Rate Basis	Rate/Acre	Loads, Speed or Time	Total Amount Applied	Acres Cov.	Avail N (Lbs/A)	Avail P ₂ O ₅ (Lbs/A)	Avail K ₂ O (Lbs/A)
LS4	May 2012	Bermuda common hay	46-0-0	Surface broadcast	Supp. N	441 Lbs		3,572 Lbs	8.1	203	0	0
LS4	Apr 2013	Bermuda common hay	Lagoon	Traveling Gun	1-yr P	28,600 Gal	278 Ft/Hr	231,660 Gal	8.1	97	80	272
LS4	May 2013	Bermuda common hay	46-0-0	Surface broadcast	Supp. N	441 Lbs		3,572 Lbs	8.1	203	0	0
LS4	Apr 2014	Bermuda common hay	Lagoon	Traveling Gun	1-yr P	28,600 Gal	278 Ft/Hr	231,660 Gal	8.1	97	80	272
LS4	May 2014	Bermuda common hay	46-0-0	Surface broadcast	Supp. N	441 Lbs		3,572 Lbs	8.1	203	0	0
LS4	Apr 2015	Bermuda common hay	Lagoon	Traveling Gun	1-yr P	28,600 Gal	278 Ft/Hr	231,660 Gal	8.1	97	80	272
LS4	May 2015	Bermuda common hay	46-0-0	Surface broadcast	Supp. N	441 Lbs		3,572 Lbs	8.1	203	0	0
LS4	Apr 2016	Bermuda common hay	Lagoon	Traveling Gun	1-yr P	28,600 Gal	278 Ft/Hr	231,660 Gal	8.1	97	80	272
LS4	May 2016	Bermuda common hay	46-0-0	Surface broadcast	Supp. N	441 Lbs		3,572 Lbs	8.1	203	0	0
LS2A	Apr 2012	Bermuda common hay	Lagoon	Traveling Gun	1-yr P	42,900 Gal	185 Ft/Hr	411,840 Gal	9.6	146	120	408
LS2A	May 2012	Bermuda common hay	46-0-0	Surface broadcast	Supp. N	334 Lbs		3,206 Lbs	9.6	154	0	0
LS2A	Apr 2013	Bermuda common hay	Lagoon	Traveling Gun	1-yr P	42,900 Gal	185 Ft/Hr	411,840 Gal	9.6	146	120	408
LS2A	May 2013	Bermuda common hay	46-0-0	Surface broadcast	Supp. N	334 Lbs		3,206 Lbs	9.6	154	0	0
LS2A	Apr 2014	Bermuda common hay	Lagoon	Traveling Gun	1-yr P	42,900 Gal	185 Ft/Hr	411,840 Gal	9.6	146	120	408
LS2A	May 2014	Bermuda common hay	46-0-0	Surface broadcast	Supp. N	334 Lbs		3,206 Lbs	9.6	154	0	0
LS2A	Apr 2015	Bermuda common hay	Lagoon	Traveling Gun	1-yr P	42,900 Gal	185 Ft/Hr	411,840 Gal	9.6	146	120	408
LS2A	May 2015	Bermuda common hay	46-0-0	Surface broadcast	Supp. N	334 Lbs		3,206 Lbs	9.6	154	0	0
LS2A	Apr 2016	Bermuda common hay	Lagoon	Traveling Gun	1-yr P	42,900 Gal	185 Ft/Hr	411,840 Gal	9.6	146	120	408
LS2A	May 2016	Bermuda common hay	46-0-0	Surface broadcast	Supp. N	334 Lbs		3,206 Lbs	9.6	154	0	0
LS3A	Apr 2012	Bermuda common hay	Lagoon	Traveling Gun	1-yr P	42,900 Gal	185 Ft/Hr	506,220 Gal	11.8	146	120	408
LS3A	May 2012	Bermuda common hay	46-0-0	Surface broadcast	Supp. N	334 Lbs		3,941 Lbs	11.8	154	0	0

Field	App. Month	Target Crop	Nutrient Source	Application Method	Rate Basis	Rate/Acre	Loads, Speed or Time	Total Amount Applied	Acres Cov.	Avail N (Lbs/A)	Avail P ₂ O ₅ (Lbs/A)	Avail K ₂ O (Lbs/A)
LS3A	Apr 2013	Bermuda common hay	Lagoon	Traveling Gun	1-yr P	42,900 Gal	185 Ft/Hr	506,220 Gal	11.8	146	120	408
LS3A	May 2013	Bermuda common hay	46-0-0	Surface broadcast	Supp. N	334 Lbs		3,941 Lbs	11.8	154	0	0
LS3A	Apr 2014	Bermuda common hay	Lagoon	Traveling Gun	1-yr P	42,900 Gal	185 Ft/Hr	506,220 Gal	11.8	146	120	408
LS3A	May 2014	Bermuda common hay	46-0-0	Surface broadcast	Supp. N	334 Lbs		3,941 Lbs	11.8	154	0	0
LS3A	Apr 2015	Bermuda common hay	Lagoon	Traveling Gun	1-yr P	42,900 Gal	185 Ft/Hr	506,220 Gal	11.8	146	120	408
LS3A	May 2015	Bermuda common hay	46-0-0	Surface broadcast	Supp. N	334 Lbs		3,941 Lbs	11.8	154	0	0
LS3A	Apr 2016	Bermuda common hay	Lagoon	Traveling Gun	1-yr P	42,900 Gal	185 Ft/Hr	506,220 Gal	11.8	146	120	408
LS3A	May 2016	Bermuda common hay	46-0-0	Surface broadcast	Supp. N	334 Lbs		3,941 Lbs	11.8	154	0	0
LS3B	Apr 2012	Bermuda common hay	Lagoon	Traveling Gun	1-yr P	21,500 Gal	369 Ft/Hr	217,150 Gal	10.1	73	60	204
LS3B	May 2012	Bermuda common hay	46-0-0	Surface broadcast	Supp. N	493 Lbs		4,979 Lbs	10.1	227	0	0
LS3B	Apr 2013	Bermuda common hay	Lagoon	Traveling Gun	1-yr P	21,500 Gal	369 Ft/Hr	217,150 Gal	10.1	73	60	204
LS3B	May 2013	Bermuda common hay	46-0-0	Surface broadcast	Supp. N	493 Lbs		4,979 Lbs	10.1	227	0	0
LS3B	Apr 2014	Bermuda common hay	Lagoon	Traveling Gun	1-yr P	21,500 Gal	369 Ft/Hr	217,150 Gal	10.1	73	60	204
LS3B	May 2014	Bermuda common hay	46-0-0	Surface broadcast	Supp. N	493 Lbs		4,979 Lbs	10.1	227	0	0
LS3B	Apr 2015	Bermuda common hay	Lagoon	Traveling Gun	1-yr P	21,500 Gal	369 Ft/Hr	217,150 Gal	10.1	73	60	204
LS3B	May 2015	Bermuda common hay	46-0-0	Surface broadcast	Supp. N	493 Lbs		4,979 Lbs	10.1	227	0	0
LS3B	Apr 2016	Bermuda common hay	Lagoon	Traveling Gun	1-yr P	21,500 Gal	369 Ft/Hr	217,150 Gal	10.1	73	60	204
LS3B	May 2016	Bermuda common hay	46-0-0	Surface broadcast	Supp. N	493 Lbs		4,979 Lbs	10.1	227	0	0
LS2B	Apr 2012	Bermuda common hay	Lagoon	Traveling Gun	1-yr P	42,900 Gal	185 Ft/Hr	416,130 Gal	9.7	146	120	408
LS2B	May 2012	Bermuda common hay	46-0-0	Surface broadcast	Supp. N	334 Lbs		3,240 Lbs	9.7	154	0	0
LS2B	Apr 2013	Bermuda common hay	Lagoon	Traveling Gun	1-yr P	42,900 Gal	185 Ft/Hr	416,130 Gal	9.7	146	120	408

Field	App. Month	Target Crop	Nutrient Source	Application Method	Rate Basis	Rate/Acre	Loads, Speed or Time	Total Amount Applied	Acres Cov.	Avail N (Lbs/A)	Avail P ₂ O ₅ (Lbs/A)	Avail K ₂ O (Lbs/A)
LS2B	May 2013	Bermuda common hay	46-0-0	Surface broadcast	Supp. N	334 Lbs		3,240 Lbs	9.7	154	0	0
LS2B	Apr 2014	Bermuda common hay	Lagoon	Traveling Gun	1-yr P	42,900 Gal	185 Ft/Hr	416,130 Gal	9.7	146	120	408
LS2B	May 2014	Bermuda common hay	46-0-0	Surface broadcast	Supp. N	334 Lbs		3,240 Lbs	9.7	154	0	0
LS2B	Apr 2015	Bermuda common hay	Lagoon	Traveling Gun	1-yr P	42,900 Gal	185 Ft/Hr	416,130 Gal	9.7	146	120	408
LS2B	May 2015	Bermuda common hay	46-0-0	Surface broadcast	Supp. N	334 Lbs		3,240 Lbs	9.7	154	0	0
LS2B	Apr 2016	Bermuda common hay	Lagoon	Traveling Gun	1-yr P	42,900 Gal	185 Ft/Hr	416,130 Gal	9.7	146	120	408
LS2B	May 2016	Bermuda common hay	46-0-0	Surface broadcast	Supp. N	334 Lbs		3,240 Lbs	9.7	154	0	0
LS1B	Apr 2012	Bermuda common hay	Lagoon	Traveling Gun	1-yr P	28,600 Gal	278 Ft/Hr	257,400 Gal	9.0	97	80	272
LS1B	May 2012	Bermuda common hay	46-0-0	Surface broadcast	Supp. N	441 Lbs		3,969 Lbs	9.0	203	0	0
LS1B	Apr 2013	Bermuda common hay	Lagoon	Traveling Gun	1-yr P	28,600 Gal	278 Ft/Hr	257,400 Gal	9.0	97	80	272
LS1B	May 2013	Bermuda common hay	46-0-0	Surface broadcast	Supp. N	441 Lbs		3,969 Lbs	9.0	203	0	0
LS1B	Apr 2014	Bermuda common hay	Lagoon	Traveling Gun	1-yr P	28,600 Gal	278 Ft/Hr	257,400 Gal	9.0	97	80	272
LS1B	May 2014	Bermuda common hay	46-0-0	Surface broadcast	Supp. N	441 Lbs		3,969 Lbs	9.0	203	0	0
LS1B	Apr 2015	Bermuda common hay	Lagoon	Traveling Gun	1-yr P	28,600 Gal	278 Ft/Hr	257,400 Gal	9.0	97	80	272
LS1B	May 2015	Bermuda common hay	46-0-0	Surface broadcast	Supp. N	441 Lbs		3,969 Lbs	9.0	203	0	0
LS1B	Apr 2016	Bermuda common hay	Lagoon	Traveling Gun	1-yr P	28,600 Gal	278 Ft/Hr	257,400 Gal	9.0	97	80	272
LS1B	May 2016	Bermuda common hay	46-0-0	Surface broadcast	Supp. N	441 Lbs		3,969 Lbs	9.0	203	0	0
LS1A	Apr 2012	Bermuda common hay	Lagoon	Traveling Gun	1-yr P	28,600 Gal	278 Ft/Hr	260,260 Gal	9.1	97	80	272
LS1A	May 2012	Bermuda common hay	46-0-0	Surface broadcast	Supp. N	441 Lbs		4,013 Lbs	9.1	203	0	0
LS1A	Apr 2013	Bermuda common hay	Lagoon	Traveling Gun	1-yr P	28,600 Gal	278 Ft/Hr	260,260 Gal	9.1	97	80	272
LS1A	May 2013	Bermuda common hay	46-0-0	Surface broadcast	Supp. N	441 Lbs		4,013 Lbs	9.1	203	0	0

Field	App Month	Target Crop	Nutrient Source	Application Method	Rate Basis	Rate/Acre	Loads, Speed or Time	Total Amount Applied	Acres Cov.	Avail N (Lbs/A)	Avail P ₂ O ₅ (Lbs/A)	Avail K ₂ O (Lbs/A)
LS1A	Apr 2014	Bermuda common hay	Lagoon	Traveling Gun	1-yr P	28,600 Gal	278 Ft/Hr	260,260 Gal	9.1	97	80	272
LS1A	May 2014	Bermuda common hay	46-0-0	Surface broadcast	Supp. N	441 Lbs		4,013 Lbs	9.1	203	0	0
LS1A	Apr 2015	Bermuda common hay	Lagoon	Traveling Gun	1-yr P	28,600 Gal	278 Ft/Hr	260,260 Gal	9.1	97	80	272
LS1A	May 2015	Bermuda common hay	46-0-0	Surface broadcast	Supp. N	441 Lbs		4,013 Lbs	9.1	203	0	0
LS1A	Apr 2016	Bermuda common hay	Lagoon	Traveling Gun	1-yr P	28,600 Gal	278 Ft/Hr	260,260 Gal	9.1	97	80	272
LS1A	May 2016	Bermuda common hay	46-0-0	Surface broadcast	Supp. N	441 Lbs		4,013 Lbs	9.1	203	0	0
LS5	Apr 2012	Bermuda common hay	Lagoon	Traveling Gun	1-yr P	42,900 Gal	185 Ft/Hr	244,530 Gal	5.7	146	120	408
LS5	May 2012	Bermuda common hay	46-0-0	Surface broadcast	Supp. N	334 Lbs		1,904 Lbs	5.7	154	0	0
LS5	Apr 2013	Bermuda common hay	Lagoon	Traveling Gun	1-yr P	42,900 Gal	185 Ft/Hr	244,530 Gal	5.7	146	120	408
LS5	May 2013	Bermuda common hay	46-0-0	Surface broadcast	Supp. N	334 Lbs		1,904 Lbs	5.7	154	0	0
LS5	Apr 2014	Bermuda common hay	Lagoon	Traveling Gun	1-yr P	42,900 Gal	185 Ft/Hr	244,530 Gal	5.7	146	120	408
LS5	May 2014	Bermuda common hay	46-0-0	Surface broadcast	Supp. N	334 Lbs		1,904 Lbs	5.7	154	0	0
LS5	Apr 2015	Bermuda common hay	Lagoon	Traveling Gun	1-yr P	42,900 Gal	185 Ft/Hr	244,530 Gal	5.7	146	120	408
LS5	May 2015	Bermuda common hay	46-0-0	Surface broadcast	Supp. N	334 Lbs		1,904 Lbs	5.7	154	0	0
LS5	Apr 2016	Bermuda common hay	Lagoon	Traveling Gun	1-yr P	42,900 Gal	185 Ft/Hr	244,530 Gal	5.7	146	120	408
LS5	May 2016	Bermuda common hay	46-0-0	Surface broadcast	Supp. N	334 Lbs		1,904 Lbs	5.7	154	0	0
LS6	Apr 2012	Bermuda common hay	Lagoon	Traveling Gun	1-yr P	42,900 Gal	185 Ft/Hr	321,750 Gal	7.5	146	120	408
LS6	May 2012	Bermuda common hay	46-0-0	Surface broadcast	Supp. N	334 Lbs		2,505 Lbs	7.5	154	0	0
LS6	Apr 2013	Bermuda common hay	Lagoon	Traveling Gun	1-yr P	42,900 Gal	185 Ft/Hr	321,750 Gal	7.5	146	120	408
LS6	May 2013	Bermuda common hay	46-0-0	Surface broadcast	Supp. N	334 Lbs		2,505 Lbs	7.5	154	0	0
LS6	Apr 2014	Bermuda common hay	Lagoon	Traveling Gun	1-yr P	42,900 Gal	185 Ft/Hr	321,750 Gal	7.5	146	120	408

Field	App. Month	Target Crop	Nutrient Source	Application Method	Rate Basis	Rate/Acre	Loads, Speed or Time	Total Amount Applied	Acres Cov.	Avail N (Lbs/A)	Avail P ₂ O ₅ (Lbs/A)	Avail K ₂ O (Lbs/A)
LS6	May 2014	Bermuda common hay	46-0-0	Surface broadcast	Supp. N	334 Lbs		2,505 Lbs	7.5	154	0	0
LS6	Apr 2015	Bermuda common hay	Lagoon	Traveling Gun	1-yr P	42,900 Gal	185 Ft/Hr	321,750 Gal	7.5	146	120	408
LS6	May 2015	Bermuda common hay	46-0-0	Surface broadcast	Supp. N	334 Lbs		2,505 Lbs	7.5	154	0	0
LS6	Apr 2016	Bermuda common hay	Lagoon	Traveling Gun	1-yr P	42,900 Gal	185 Ft/Hr	321,750 Gal	7.5	146	120	408
LS6	May 2016	Bermuda common hay	46-0-0	Surface broadcast	Supp. N	334 Lbs		2,505 Lbs	7.5	154	0	0
LS	Apr 2012	Bermuda common hay	Lagoon	Traveling Gun	1-yr P	28,600 Gal	278 Ft/Hr	386,100 Gal	13.5	97	80	272
LS	May 2012	Bermuda common hay	46-0-0	Surface broadcast	Supp. N	441 Lbs		5,954 Lbs	13.5	203	0	0
LS	Apr 2013	Bermuda common hay	Lagoon	Traveling Gun	1-yr P	28,600 Gal	278 Ft/Hr	386,100 Gal	13.5	97	80	272
LS	May 2013	Bermuda common hay	46-0-0	Surface broadcast	Supp. N	441 Lbs		5,954 Lbs	13.5	203	0	0
LS	Apr 2014	Bermuda common hay	Lagoon	Traveling Gun	1-yr P	28,600 Gal	278 Ft/Hr	386,100 Gal	13.5	97	80	272
LS	May 2014	Bermuda common hay	46-0-0	Surface broadcast	Supp. N	441 Lbs		5,954 Lbs	13.5	203	0	0
LS	Apr 2015	Bermuda common hay	Lagoon	Traveling Gun	1-yr P	28,600 Gal	278 Ft/Hr	386,100 Gal	13.5	97	80	272
LS	May 2015	Bermuda common hay	46-0-0	Surface broadcast	Supp. N	441 Lbs		5,954 Lbs	13.5	203	0	0
LS	Apr 2016	Bermuda common hay	Lagoon	Traveling Gun	1-yr P	28,600 Gal	278 Ft/Hr	386,100 Gal	13.5	97	80	272
LS	May 2016	Bermuda common hay	46-0-0	Surface broadcast	Supp. N	441 Lbs		5,954 Lbs	13.5	203	0	0

Planned Nutrient Applications (Non-manure-spreadable Area)

Field	App. Month	Target Crop	Nutrient Source	Application Method	Rate Basis	Rate/Acre	Total Amount Applied	Acres Cov.	Avail N (Lbs/A)	Avail P ₂ O ₅ (Lbs/A)	Avail K ₂ O (Lbs/A)
NC2	May 2012	Bermuda common hay	46-0-0	Surface broadcast	1-yr N	441 Lbs	132 Lbs	0.3	203	0	0
NC2	May 2013	Bermuda common hay	46-0-0	Surface broadcast	1-yr N	441 Lbs	132 Lbs	0.3	203	0	0
NC2	May 2014	Bermuda common hay	46-0-0	Surface broadcast	1-yr N	441 Lbs	132 Lbs	0.3	203	0	0

Field	App. Month	Target Crop	Nutrient Source	Application Method	Rate Basis	Rate/Acre	Total Amount Applied	Acres Cov.	Avail N (Lbs/A)	Avail P ₂ O ₅ (Lbs/A)	Avail K ₂ O (Lbs/A)
NC2	May 2015	Bermuda common hay	46-0-0	Surface broadcast	1-yr N	441 Lbs	132 Lbs	0.3	203	0	0
NC2	May 2016	Bermuda common hay	46-0-0	Surface broadcast	1-yr N	441 Lbs	132 Lbs	0.3	203	0	0
NC1A	May 2012	Bermuda common hay	46-0-0	Surface broadcast	1-yr N	441 Lbs	617 Lbs	1.4	203	0	0
NC1A	May 2013	Bermuda common hay	46-0-0	Surface broadcast	1-yr N	441 Lbs	617 Lbs	1.4	203	0	0
NC1A	May 2014	Bermuda common hay	46-0-0	Surface broadcast	1-yr N	441 Lbs	617 Lbs	1.4	203	0	0
NC1A	May 2015	Bermuda common hay	46-0-0	Surface broadcast	1-yr N	441 Lbs	617 Lbs	1.4	203	0	0
NC1A	May 2016	Bermuda common hay	46-0-0	Surface broadcast	1-yr N	441 Lbs	617 Lbs	1.4	203	0	0
NC1B	May 2012	Bermuda common hay	46-0-0	Surface broadcast	1-yr N	441 Lbs	132 Lbs	0.3	203	0	0
NC1B	May 2013	Bermuda common hay	46-0-0	Surface broadcast	1-yr N	441 Lbs	132 Lbs	0.3	203	0	0
NC1B	May 2014	Bermuda common hay	46-0-0	Surface broadcast	1-yr N	441 Lbs	132 Lbs	0.3	203	0	0
NC1B	May 2015	Bermuda common hay	46-0-0	Surface broadcast	1-yr N	441 Lbs	132 Lbs	0.3	203	0	0
NC1B	May 2016	Bermuda common hay	46-0-0	Surface broadcast	1-yr N	441 Lbs	132 Lbs	0.3	203	0	0
LS4	May 2012	Bermuda common hay	46-0-0	Surface broadcast	1-yr N	441 Lbs	353 Lbs	0.8	203	0	0
LS4	May 2013	Bermuda common hay	46-0-0	Surface broadcast	1-yr N	441 Lbs	353 Lbs	0.8	203	0	0
LS4	May 2014	Bermuda common hay	46-0-0	Surface broadcast	1-yr N	441 Lbs	353 Lbs	0.8	203	0	0
LS4	May 2015	Bermuda common hay	46-0-0	Surface broadcast	1-yr N	441 Lbs	353 Lbs	0.8	203	0	0
LS4	May 2016	Bermuda common hay	46-0-0	Surface broadcast	1-yr N	441 Lbs	353 Lbs	0.8	203	0	0
LS2A	May 2012	Bermuda common hay	46-0-0	Surface broadcast	1-yr N	334 Lbs	167 Lbs	0.5	154	0	0
LS2A	May 2013	Bermuda common hay	46-0-0	Surface broadcast	1-yr N	334 Lbs	167 Lbs	0.5	154	0	0
LS2A	May 2014	Bermuda common hay	46-0-0	Surface broadcast	1-yr N	334 Lbs	167 Lbs	0.5	154	0	0
LS2A	May 2015	Bermuda common hay	46-0-0	Surface broadcast	1-yr N	334 Lbs	167 Lbs	0.5	154	0	0

Field	App. Month	Target Crop	Nutrient Source	Application Method	Rate Basis	Rate/Acre	Total Amount Applied	Acres Cov.	Avail N (Lbs/A)	Avail P ₂ O ₅ (Lbs/A)	Avail K ₂ O (Lbs/A)
LS2A	May 2016	Bermuda common hay	46-0-0	Surface broadcast	1-yr N	334 Lbs	167 Lbs	0.5	154	0	0
LS3A	May 2012	Bermuda common hay	46-0-0	Surface broadcast	1-yr N	334 Lbs	267 Lbs	0.8	154	0	0
LS3A	May 2013	Bermuda common hay	46-0-0	Surface broadcast	1-yr N	334 Lbs	267 Lbs	0.8	154	0	0
LS3A	May 2014	Bermuda common hay	46-0-0	Surface broadcast	1-yr N	334 Lbs	267 Lbs	0.8	154	0	0
LS3A	May 2015	Bermuda common hay	46-0-0	Surface broadcast	1-yr N	334 Lbs	267 Lbs	0.8	154	0	0
LS3A	May 2016	Bermuda common hay	46-0-0	Surface broadcast	1-yr N	334 Lbs	267 Lbs	0.8	154	0	0
LS3B	May 2012	Bermuda common hay	46-0-0	Surface broadcast	1-yr N	493 Lbs	394 Lbs	0.8	227	0	0
LS3B	May 2013	Bermuda common hay	46-0-0	Surface broadcast	1-yr N	493 Lbs	394 Lbs	0.8	227	0	0
LS3B	May 2014	Bermuda common hay	46-0-0	Surface broadcast	1-yr N	493 Lbs	394 Lbs	0.8	227	0	0
LS3B	May 2015	Bermuda common hay	46-0-0	Surface broadcast	1-yr N	493 Lbs	394 Lbs	0.8	227	0	0
LS3B	May 2016	Bermuda common hay	46-0-0	Surface broadcast	1-yr N	493 Lbs	394 Lbs	0.8	227	0	0
LS2B	May 2012	Bermuda common hay	46-0-0	Surface broadcast	1-yr N	334 Lbs	33 Lbs	0.1	154	0	0
LS2B	May 2013	Bermuda common hay	46-0-0	Surface broadcast	1-yr N	334 Lbs	33 Lbs	0.1	154	0	0
LS2B	May 2014	Bermuda common hay	46-0-0	Surface broadcast	1-yr N	334 Lbs	33 Lbs	0.1	154	0	0
LS2B	May 2015	Bermuda common hay	46-0-0	Surface broadcast	1-yr N	334 Lbs	33 Lbs	0.1	154	0	0
LS2B	May 2016	Bermuda common hay	46-0-0	Surface broadcast	1-yr N	334 Lbs	33 Lbs	0.1	154	0	0
LS1A	May 2012	Bermuda common hay	46-0-0	Surface broadcast	1-yr N	441 Lbs	44 Lbs	0.1	203	0	0
LS1A	May 2013	Bermuda common hay	46-0-0	Surface broadcast	1-yr N	441 Lbs	44 Lbs	0.1	203	0	0
LS1A	May 2014	Bermuda common hay	46-0-0	Surface broadcast	1-yr N	441 Lbs	44 Lbs	0.1	203	0	0
LS1A	May 2015	Bermuda common hay	46-0-0	Surface broadcast	1-yr N	441 Lbs	44 Lbs	0.1	203	0	0
LS1A	May 2016	Bermuda common hay	46-0-0	Surface broadcast	1-yr N	441 Lbs	44 Lbs	0.1	203	0	0

Field	App Month	Target Crop	Nutrient Source	Application Method	Rate Basis	Rate/Acre	Total Amount Applied	Acres Cov.	Avail N (Lbs/A)	Avail P ₂ O ₅ (Lbs/A)	Avail K ₂ O (Lbs/A)
LS5	May 2012	Bermuda common hay	46-0-0	Surface broadcast	1-yr N	334 Lbs	501 Lbs	1.5	154	0	0
LS5	May 2013	Bermuda common hay	46-0-0	Surface broadcast	1-yr N	334 Lbs	501 Lbs	1.5	154	0	0
LS5	May 2014	Bermuda common hay	46-0-0	Surface broadcast	1-yr N	334 Lbs	501 Lbs	1.5	154	0	0
LS5	May 2015	Bermuda common hay	46-0-0	Surface broadcast	1-yr N	334 Lbs	501 Lbs	1.5	154	0	0
LS5	May 2016	Bermuda common hay	46-0-0	Surface broadcast	1-yr N	334 Lbs	501 Lbs	1.5	154	0	0
LS6	May 2012	Bermuda common hay	46-0-0	Surface broadcast	1-yr N	334 Lbs	501 Lbs	1.5	154	0	0
LS6	May 2013	Bermuda common hay	46-0-0	Surface broadcast	1-yr N	334 Lbs	501 Lbs	1.5	154	0	0
LS6	May 2014	Bermuda common hay	46-0-0	Surface broadcast	1-yr N	334 Lbs	501 Lbs	1.5	154	0	0
LS6	May 2015	Bermuda common hay	46-0-0	Surface broadcast	1-yr N	334 Lbs	501 Lbs	1.5	154	0	0
LS6	May 2016	Bermuda common hay	46-0-0	Surface broadcast	1-yr N	334 Lbs	501 Lbs	1.5	154	0	0
LS	May 2012	Bermuda common hay	46-0-0	Surface broadcast	1-yr N	441 Lbs	176 Lbs	0.4	203	0	0
LS	May 2013	Bermuda common hay	46-0-0	Surface broadcast	1-yr N	441 Lbs	176 Lbs	0.4	203	0	0
LS	May 2014	Bermuda common hay	46-0-0	Surface broadcast	1-yr N	441 Lbs	176 Lbs	0.4	203	0	0
LS	May 2015	Bermuda common hay	46-0-0	Surface broadcast	1-yr N	441 Lbs	176 Lbs	0.4	203	0	0
LS	May 2016	Bermuda common hay	46-0-0	Surface broadcast	1-yr N	441 Lbs	176 Lbs	0.4	203	0	0

6.8. Field Nutrient Balance (Manure-spreadable Area)

Year	Field	Size	Crop	Yield Goal /Acre	Fertilizer Recs ¹			Nutrients Applied ²			Balance After Recs ³			Balance After Removal ⁴	
					N Lb/A	P ₂ O ₅ Lb/A	K ₂ O Lb/A	N Lb/A	P ₂ O ₅ Lb/A	K ₂ O Lb/A	N Lb/A	P ₂ O ₅ Lb/A	K ₂ O Lb/A	P ₂ O ₅ Lb/A	K ₂ O Lb/A
2012	NC2	8.8	Bermuda common hay	5	300	80	0	300	80	272	0	0	272	20	22
2013	NC2	8.8	Bermuda common hay	5	300	80	0	300	80	272	0	0	544	40	44
2014	NC2	8.8	Bermuda common hay	5	300	80	0	300	80	272	0	0	816	60	66
2015	NC2	8.8	Bermuda common hay	5	300	80	0	300	80	272	0	0	1,088	80	88
2016	NC2	8.8	Bermuda common hay	5	300	80	0	300	80	272	0	0	1,360	100	110
Total	NC2				1500	400	0	1500	400	1360					
2012	NC3	2.1	Bermuda common hay	5	300	0	0	300	60	204	0	60	204	0	-46
2013	NC3	2.1	Bermuda common hay	5	300	0	0	300	60	204	0	120	408	0	-46
2014	NC3	2.1	Bermuda common hay	5	300	0	0	300	60	204	0	180	612	0	-46
2015	NC3	2.1	Bermuda common hay	5	300	0	0	300	60	204	0	240	816	0	-46
2016	NC3	2.1	Bermuda common hay	5	300	0	0	300	60	204	0	300	1,020	0	-46
Total	NC3				1500	0	0	1500	300	1020					
2012	NC1A	6.5	Bermuda common hay	5	300	80	0	300	80	272	0	0	272	20	22
2013	NC1A	6.5	Bermuda common hay	5	300	80	0	300	80	272	0	0	544	40	44
2014	NC1A	6.5	Bermuda common hay	5	300	80	0	300	80	272	0	0	816	60	66
2015	NC1A	6.5	Bermuda common hay	5	300	80	0	300	80	272	0	0	1,088	80	88
2016	NC1A	6.5	Bermuda common hay	5	300	80	0	300	80	272	0	0	1,360	100	110
Total	NC1A				1500	400	0	1500	400	1360					
2012	NC1B	5.5	Bermuda common hay	5	300	80	0	300	80	272	0	0	272	20	22
2013	NC1B	5.5	Bermuda common hay	5	300	80	0	300	80	272	0	0	544	40	44
2014	NC1B	5.5	Bermuda common hay	5	300	80	0	300	80	272	0	0	816	60	66
2015	NC1B	5.5	Bermuda common hay	5	300	80	0	300	80	272	0	0	1,088	80	88
2016	NC1B	5.5	Bermuda common hay	5	300	80	0	300	80	272	0	0	1,360	100	110
Total	NC1B				1500	400	0	1500	400	1360					
2012	LS4	8.1	Bermuda common hay	5	300	80	0	300	80	272	0	0	272	20	22
2013	LS4	8.1	Bermuda common hay	5	300	80	0	300	80	272	0	0	544	40	44
2014	LS4	8.1	Bermuda common hay	5	300	80	0	300	80	272	0	0	816	60	66
2015	LS4	8.1	Bermuda common hay	5	300	80	0	300	80	272	0	0	1,088	80	88

Year	Field	Size	Crop	Yield Goal /Acre	Fertilizer Recs ¹			Nutrients Applied ²			Balance After Recs ³			Balance After Removal ⁴	
					N Lb/A	P ₂ O ₅ Lb/A	K ₂ O Lb/A	N Lb/A	P ₂ O ₅ Lb/A	K ₂ O Lb/A	N Lb/A	P ₂ O ₅ Lb/A	K ₂ O Lb/A	P ₂ O ₅ Lb/A	K ₂ O Lb/A
2016	LS4	8.1	Bermuda common hay	5	300	80	0	300	80	272	0	0	1,360	100	110
Total	LS4				1500	400	0	1500	400	1360					
2012	LS2A	9.6	Bermuda common hay	5	300	120	0	300	120	408	0	0	408	60	158
2013	LS2A	9.6	Bermuda common hay	5	300	120	0	300	120	408	0	0	816	120	316
2014	LS2A	9.6	Bermuda common hay	5	300	120	0	300	120	408	0	0	1,224	180	474
2015	LS2A	9.6	Bermuda common hay	5	300	120	0	300	120	408	0	0	1,632	240	632
2016	LS2A	9.6	Bermuda common hay	5	300	120	0	300	120	408	0	0	2,040	300	790
Total	LS2A				1500	600	0	1500	600	2040					
2012	LS3A	11.8	Bermuda common hay	5	300	120	0	300	120	408	0	0	408	60	158
2013	LS3A	11.8	Bermuda common hay	5	300	120	0	300	120	408	0	0	816	120	316
2014	LS3A	11.8	Bermuda common hay	5	300	120	0	300	120	408	0	0	1,224	180	474
2015	LS3A	11.8	Bermuda common hay	5	300	120	0	300	120	408	0	0	1,632	240	632
2016	LS3A	11.8	Bermuda common hay	5	300	120	0	300	120	408	0	0	2,040	300	790
Total	LS3A				1500	600	0	1500	600	2040					
2012	LS3B	10.1	Bermuda common hay	5	300	0	0	300	60	204	0	60	204	0	-46
2013	LS3B	10.1	Bermuda common hay	5	300	0	0	300	60	204	0	120	408	0	-46
2014	LS3B	10.1	Bermuda common hay	5	300	0	0	300	60	204	0	180	612	0	-46
2015	LS3B	10.1	Bermuda common hay	5	300	0	0	300	60	204	0	240	816	0	-46
2016	LS3B	10.1	Bermuda common hay	5	300	0	0	300	60	204	0	300	1,020	0	-46
Total	LS3B				1500	0	0	1500	300	1020					
2012	LS2B	9.7	Bermuda common hay	5	300	120	0	300	120	408	0	0	408	60	158
2013	LS2B	9.7	Bermuda common hay	5	300	120	0	300	120	408	0	0	816	120	316
2014	LS2B	9.7	Bermuda common hay	5	300	120	0	300	120	408	0	0	1,224	180	474
2015	LS2B	9.7	Bermuda common hay	5	300	120	0	300	120	408	0	0	1,632	240	632
2016	LS2B	9.7	Bermuda common hay	5	300	120	0	300	120	408	0	0	2,040	300	790
Total	LS2B				1500	600	0	1500	600	2040					
2012	LS1B	9.0	Bermuda common hay	5	300	80	0	300	80	272	0	0	272	20	22
2013	LS1B	9.0	Bermuda common hay	5	300	80	0	300	80	272	0	0	544	40	44
2014	LS1B	9.0	Bermuda common hay	5	300	80	0	300	80	272	0	0	816	60	66

Year	Field	Size	Crop	Yield Goal	Fertilizer Recs ¹			Nutrients Applied ²			Balance After Recs ³			Balance After Removal ⁴	
					N Lb/A	P ₂ O ₅ Lb/A	K ₂ O Lb/A	N Lb/A	P ₂ O ₅ Lb/A	K ₂ O Lb/A	N Lb/A	P ₂ O ₅ Lb/A	K ₂ O Lb/A	P ₂ O ₅ Lb/A	K ₂ O Lb/A
2015	LS1B	9.0	Bermuda common hay	5	300	80	0	300	80	272	0	0	1,088	80	88
2016	LS1B	9.0	Bermuda common hay	5	300	80	0	300	80	272	0	0	1,360	100	110
Total	LS1B				1500	400	0	1500	400	1360					
2012	LS1A	9.1	Bermuda common hay	5	300	80	0	300	80	272	0	0	272	20	22
2013	LS1A	9.1	Bermuda common hay	5	300	80	0	300	80	272	0	0	544	40	44
2014	LS1A	9.1	Bermuda common hay	5	300	80	0	300	80	272	0	0	816	60	66
2015	LS1A	9.1	Bermuda common hay	5	300	80	0	300	80	272	0	0	1,088	80	88
2016	LS1A	9.1	Bermuda common hay	5	300	80	0	300	80	272	0	0	1,360	100	110
Total	LS1A				1500	400	0	1500	400	1360					
2012	LS5	5.7	Bermuda common hay	5	300	120	0	300	120	408	0	0	408	60	158
2013	LS5	5.7	Bermuda common hay	5	300	120	0	300	120	408	0	0	816	120	316
2014	LS5	5.7	Bermuda common hay	5	300	120	0	300	120	408	0	0	1,224	180	474
2015	LS5	5.7	Bermuda common hay	5	300	120	0	300	120	408	0	0	1,632	240	632
2016	LS5	5.7	Bermuda common hay	5	300	120	0	300	120	408	0	0	2,040	300	790
Total	LS5				1500	600	0	1500	600	2040					
2012	LS6	7.5	Bermuda common hay	3	300	120	60	300	120	408	0	0	348	84	258
2013	LS6	7.5	Bermuda common hay	5	300	120	60	300	120	408	0	0	696	144	416
2014	LS6	7.5	Bermuda common hay	5	300	120	60	300	120	408	0	0	1,044	204	574
2015	LS6	7.5	Bermuda common hay	5	300	120	60	300	120	408	0	0	1,392	264	732
2016	LS6	7.5	Bermuda common hay	5	300	120	60	300	120	408	0	0	1,740	324	890
Total	LS6				1500	600	300	1500	600	2040					
2012	LS	13.5	Bermuda common hay	5	300	80	0	300	80	272	0	0	272	20	22
2013	LS	13.5	Bermuda common hay	5	300	80	0	300	80	272	0	0	544	40	44
2014	LS	13.5	Bermuda common hay	5	300	80	0	300	80	272	0	0	816	60	66
2015	LS	13.5	Bermuda common hay	5	300	80	0	300	80	272	0	0	1,088	80	88
2016	LS	13.5	Bermuda common hay	5	300	80	0	300	80	272	0	0	1,360	100	110
Total	LS				1500	400	0	1500	400	1360					

Field Nutrient Balance (Non-manure-spreadable Area)

Year	Field	Size	Crop	Yield Goal /Acre	Fertilizer Recs ¹			Nutrients Applied ²			Balance After Recs ³			Balance After Removal ⁴	
					N Lb/A	P ₂ O ₅ Lb/A	K ₂ O Lb/A	N Lb/A	P ₂ O ₅ Lb/A	K ₂ O Lb/A	N Lb/A	P ₂ O ₅ Lb/A	K ₂ O Lb/A	P ₂ O ₅ Lb/A	K ₂ O Lb/A
2012	NC2	0.3	Bermuda common hay	5	300	80	0	203	0	0	-97	-80	0	-60	-250
2013	NC2	0.3	Bermuda common hay	5	300	80	0	203	0	0	-97	-80	0	-60	-250
2014	NC2	0.3	Bermuda common hay	5	300	80	0	203	0	0	-97	-80	0	-60	-250
2015	NC2	0.3	Bermuda common hay	5	300	80	0	203	0	0	-97	-80	0	-60	-250
2016	NC2	0.3	Bermuda common hay	5	300	80	0	203	0	0	-97	-80	0	-60	-250
Total	NC2				1500	400	0	1015	0	0					
2012	NC1A	1.4	Bermuda common hay	5	300	80	0	203	0	0	-97	-80	0	-60	-250
2013	NC1A	1.4	Bermuda common hay	5	300	80	0	203	0	0	-97	-80	0	-60	-250
2014	NC1A	1.4	Bermuda common hay	5	300	80	0	203	0	0	-97	-80	0	-60	-250
2015	NC1A	1.4	Bermuda common hay	5	300	80	0	203	0	0	-97	-80	0	-60	-250
2016	NC1A	1.4	Bermuda common hay	5	300	80	0	203	0	0	-97	-80	0	-60	-250
Total	NC1A				1500	400	0	1015	0	0					
2012	NC1B	0.3	Bermuda common hay	5	300	80	0	203	0	0	-97	-80	0	-60	-250
2013	NC1B	0.3	Bermuda common hay	5	300	80	0	203	0	0	-97	-80	0	-60	-250
2014	NC1B	0.3	Bermuda common hay	5	300	80	0	203	0	0	-97	-80	0	-60	-250
2015	NC1B	0.3	Bermuda common hay	5	300	80	0	203	0	0	-97	-80	0	-60	-250
2016	NC1B	0.3	Bermuda common hay	5	300	80	0	203	0	0	-97	-80	0	-60	-250
Total	NC1B				1500	400	0	1015	0	0					
2012	LS4	0.8	Bermuda common hay	5	300	80	0	203	0	0	-97	-80	0	-60	-250
2013	LS4	0.8	Bermuda common hay	5	300	80	0	203	0	0	-97	-80	0	-60	-250
2014	LS4	0.8	Bermuda common hay	5	300	80	0	203	0	0	-97	-80	0	-60	-250
2015	LS4	0.8	Bermuda common hay	5	300	80	0	203	0	0	-97	-80	0	-60	-250
2016	LS4	0.8	Bermuda common hay	5	300	80	0	203	0	0	-97	-80	0	-60	-250
Total	LS4				1500	400	0	1015	0	0					
2012	LS2A	0.5	Bermuda common hay	5	300	120	0	154	0	0	-146	-120	0	-60	-250
2013	LS2A	0.5	Bermuda common hay	5	300	120	0	154	0	0	-146	-120	0	-60	-250
2014	LS2A	0.5	Bermuda common hay	5	300	120	0	154	0	0	-146	-120	0	-60	-250
2015	LS2A	0.5	Bermuda common hay	5	300	120	0	154	0	0	-146	-120	0	-60	-250
2016	LS2A	0.5	Bermuda common hay	5	300	120	0	154	0	0	-146	-120	0	-60	-250

Year	Field	Size	Crop	Yield Goal	Fertilizer Recs ¹			Nutrients Applied ²			Balance After Recs ³			Balance After Removal ⁴	
					N Lb/A	P ₂ O ₅ Lb/A	K ₂ O Lb/A	N Lb/A	P ₂ O ₅ Lb/A	K ₂ O Lb/A	N Lb/A	P ₂ O ₅ Lb/A	K ₂ O Lb/A	P ₂ O ₅ Lb/A	K ₂ O Lb/A
Total	LS2A			/Acre	1500	600	0	770	0	0					
2012	LS3A	0.8	Bermuda common hay	5	300	120	0	154	0	0	-146	-120	0	-60	-250
2013	LS3A	0.8	Bermuda common hay	5	300	120	0	154	0	0	-146	-120	0	-60	-250
2014	LS3A	0.8	Bermuda common hay	5	300	120	0	154	0	0	-146	-120	0	-60	-250
2015	LS3A	0.8	Bermuda common hay	5	300	120	0	154	0	0	-146	-120	0	-60	-250
2016	LS3A	0.8	Bermuda common hay	5	300	120	0	154	0	0	-146	-120	0	-60	-250
Total	LS3A				1500	600	0	770	0	0					
2012	LS3B	0.8	Bermuda common hay	5	300	0	0	227	0	0	-73	0	0	-60	-250
2013	LS3B	0.8	Bermuda common hay	5	300	0	0	227	0	0	-73	0	0	-60	-250
2014	LS3B	0.8	Bermuda common hay	5	300	0	0	227	0	0	-73	0	0	-60	-250
2015	LS3B	0.8	Bermuda common hay	5	300	0	0	227	0	0	-73	0	0	-60	-250
2016	LS3B	0.8	Bermuda common hay	5	300	0	0	227	0	0	-73	0	0	-60	-250
Total	LS3B				1500	0	0	1135	0	0					
2012	LS2B	0.1	Bermuda common hay	5	300	120	0	154	0	0	-146	-120	0	-60	-250
2013	LS2B	0.1	Bermuda common hay	5	300	120	0	154	0	0	-146	-120	0	-60	-250
2014	LS2B	0.1	Bermuda common hay	5	300	120	0	154	0	0	-146	-120	0	-60	-250
2015	LS2B	0.1	Bermuda common hay	5	300	120	0	154	0	0	-146	-120	0	-60	-250
2016	LS2B	0.1	Bermuda common hay	5	300	120	0	154	0	0	-146	-120	0	-60	-250
Total	LS2B				1500	600	0	770	0	0					
2012	LS1A	0.1	Bermuda common hay	5	300	80	0	203	0	0	-97	-80	0	-60	-250
2013	LS1A	0.1	Bermuda common hay	5	300	80	0	203	0	0	-97	-80	0	-60	-250
2014	LS1A	0.1	Bermuda common hay	5	300	80	0	203	0	0	-97	-80	0	-60	-250
2015	LS1A	0.1	Bermuda common hay	5	300	80	0	203	0	0	-97	-80	0	-60	-250
2016	LS1A	0.1	Bermuda common hay	5	300	80	0	203	0	0	-97	-80	0	-60	-250
Total	LS1A				1500	400	0	1015	0	0					
2012	LS5	1.5	Bermuda common hay	5	300	120	0	154	0	0	-146	-120	0	-60	-250
2013	LS5	1.5	Bermuda common hay	5	300	120	0	154	0	0	-146	-120	0	-60	-250
2014	LS5	1.5	Bermuda common hay	5	300	120	0	154	0	0	-146	-120	0	-60	-250
2015	LS5	1.5	Bermuda common hay	5	300	120	0	154	0	0	-146	-120	0	-60	-250

Year	Field	Size	Crop	Yield Goal	Fertilizer Recs ¹			Nutrients Applied ²			Balance After Recs ³			Balance After Removal ⁴	
					N Lb/A ^a	P ₂ O ₅ Lb/A	K ₂ O Lb/A	N Lb/A	P ₂ O ₅ Lb/A	K ₂ O Lb/A	N Lb/A	P ₂ O ₅ Lb/A	K ₂ O Lb/A	P ₂ O ₅ Lb/A	K ₂ O Lb/A
2016	LS5	1.5	Bermuda common hay	5	300	120	0	154	0	0	-146	-120	0	-60	-250
Total	LS5				1500	600	0	770	0	0					
2012	LS6	1.5	Bermuda common hay	5	300	120	60	154	0	0	-146	-120	-60	-36	-150
2013	LS6	1.5	Bermuda common hay	5	300	120	60	154	0	0	-146	-120	-60	-60	-250
2014	LS6	1.5	Bermuda common hay	5	300	120	60	154	0	0	-146	-120	-60	-60	-250
2015	LS6	1.5	Bermuda common hay	5	300	120	60	154	0	0	-146	-120	-60	-60	-250
2016	LS6	1.5	Bermuda common hay	5	300	120	60	154	0	0	-146	-120	-60	-60	-250
Total	LS6				1500	600	300	770	0	0					
2012	LS	0.4	Bermuda common hay	5	300	80	0	203	0	0	-97	-80	0	-60	-250
2013	LS	0.4	Bermuda common hay	5	300	80	0	203	0	0	-97	-80	0	-60	-250
2014	LS	0.4	Bermuda common hay	5	300	80	0	203	0	0	-97	-80	0	-60	-250
2015	LS	0.4	Bermuda common hay	5	300	80	0	203	0	0	-97	-80	0	-60	-250
2016	LS	0.4	Bermuda common hay	5	300	80	0	203	0	0	-97	-80	0	-60	-250
Total	LS				1500	400	0	1015	0	0					

¹ Fertilizer Recs are the crop fertilizer recommendations. The N rec accounts for any N credit from previous legume crop.

² Nutrients Applied are the nutrients expected to be available to the crop from that year's manure applications plus nutrients from that year's commercial fertilizer applications and nitrates from irrigation water. With a double-crop year, the total nutrients applied for both crops and the year's balances are listed on the second crop's line.

³ For N, Nutrients Applied minus Fertilizer Recs for indicated crop year. Also includes amount of residual N expected to become available that year from prior years' manure applications. For P₂O₅ and K₂O, Nutrients Applied minus Fertilizer Recs *through* the indicated crop year, with positive balances carried forward to subsequent years. Negative values indicate a potential need to apply additional nutrients.

⁴ Nutrients Applied minus amount removed by harvested portion of crop through the indicated year. Positive balances are carried forward to subsequent years.

^a Indicates a custom fertilizer recommendation in the Fertilizer Recs column.

[†] Indicates in the Balance After Recs N column that the legume crop is assumed to utilize some or all of the supplied N.

[‡] Indicates in the Balance After Recs N column that the value includes residual N expected to become available that year from prior years' manure applications.

6.11. Plan Nutrient Balance (Manure-spreadable Area)

	N (Lbs)	P ₂ O ₅ (Lbs)	K ₂ O (Lbs)
Total Manure Nutrients on Hand at Start of Plan ¹	75,317	31,013	105,222
Total Manure Nutrients Collected ²	850,121	316,239	686,129
Total Manure Nutrients Imported ³	0	0	0
Total Manure Nutrients Exported ⁴	199,859	75,534	178,923
Total Manure Nutrients on Hand at End of Plan ⁵	593,214	217,215	427,508
Total Manure Nutrients Applied ⁶	132,269	54,440	185,096
Available Manure Nutrients Applied ⁷	66,134	54,440	185,096
Commercial Fertilizer Nutrients Applied ⁸	109,365	0	0
Available Nutrients Applied ⁹	175,499	54,440	185,096
Nutrient Utilization Potential ¹⁰	175,500	54,440	145,500
Nutrient Balance of Spreadable Acres ^{11*}	-1	0	39,596
Average Nutrient Balance per Spreadable Acre per Year ^{12*}	0	0	68

1. Values indicate total manure nutrients present in storage(s) at the beginning of the plan.

2. Values indicate total manure nutrients collected on the farm.

3. Values indicate total manure nutrients imported onto the farm.

4. Values indicate total manure nutrients exported from the farm to an external operation.

5. Values indicate total manure nutrients present in storage(s) at the end of plan.

6. Values indicate total nutrients present in land-applied manure. Losses due to rate, timing and method of application are not included in these values.

7. Values indicate available manure nutrients applied on the farm based on rate, time and method of application. These values are based on the total manure nutrients applied (row 6) after accounting for state-specific nutrient losses due to rate, time and method of application.

8. Values indicate nutrients applied as commercial fertilizers and nitrates contained in irrigation water.

9. Values are the sum of available manure nutrients applied (row 7) and commercial fertilizer nutrients applied (row 8).

10. Values indicate nutrient utilization potential of crops grown. For N the value generally is based on crop N recommendation for non-legume crops and crop N uptake or other state-imposed limit for N application rates for legumes. P₂O₅ and K₂O values generally are based on fertilizer recommendations or crop removal (whichever is greatest).

11. Values indicate available nutrients applied (row 9) minus crop nutrient utilization potential (row 10). Negative values indicate additional nutrient utilization potential and positive values indicate over-application.

12. Values indicate average per acre nutrient balance. Values are calculated by dividing nutrient balance of spreadable acres (row 11) by the number of spreadable acres in plan and by the length of the plan in years. Negative values indicate additional average per acre nutrient utilization potential and positive values indicate average per acre over-application.

* Non-trivial, positive values for N indicate that the plan was not properly developed. Negative values for N indicate additional nutrient utilization potential which may or may not be intentional. For example, plans that include legume crops often will not utilize the full N utilization potential for legume crops if manure can be applied to non-legume crops that require N for optimum yield. Positive values for P₂O₅ and/or K₂O do not necessarily indicate that the plan was not developed properly. For example, producers may be allowed to apply N-based application rates of manure to fields with low soil test P values or fields with a low potential P-loss risk based on the risk assessment tool used by the state. Negative values for P₂O₅ and K₂O indicate that planned applications to some fields are less than crop removal rates.

Plan Nutrient Balance (Non-manure-spreadable Area)

	N (Lbs)	P ₂ O ₅ (Lbs)	K ₂ O (Lbs)
Commercial Fertilizer Nutrients Applied ¹	7,645	0	0
Nutrient Utilization Potential ²	12,750	3,960	450
Nutrient Balance of Non-spreadable Acres ^{3*}	-5,105	-3,960	-450
Average Nutrient Balance per Non-spreadable Acre per Year ^{4*}	-120	-93	-11

1. Values indicate nutrients applied as commercial fertilizers and nitrates contained in irrigation water.
2. Values indicate nutrient utilization potential of crops grown based on crop fertilizer recommendations.
3. Values indicate commercial fertilizer nutrients applied (row 1) minus crop nutrient utilization potential (row 2). Negative values indicate additional nutrient utilization potential and positive values indicate over-application.
4. Values indicate average per acre nutrient balance. Values are calculated by dividing nutrient balance of non-spreadable acres (row 3) by number of non-spreadable acres in plan. Negative values indicate additional average per acre nutrient utilization potential and positive values indicate average per acre over-application.

* Non-trivial, positive values for N indicate that the plan was not properly developed. Negative values for N indicate additional nutrient utilization potential which may or may not be intentional. Positive values for P₂O₅ and/or K₂O do not necessarily indicate that the plan was not developed properly. For example, multiple year applications may have been planned during the final plan year(s) and these nutrients will not be utilized by crops in the current plan. Negative values for P₂O₅ and K₂O indicate that applications to some fields may have been delayed to allow the producer to apply the nutrients in accordance with their fertilization schedule.

Erin O'Brien

From: JT Workman <workman_22@hotmail.com>
Sent: Tuesday, October 23, 2012 8:53 PM
To: Erin O'Brien
Subject: Chuck Hayes

Looks like on page 12 I had .58 feet which is 6.96 inches for a 24 hour 25 year storm event.

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